2021 KANSAS WHEAT

TRIAL DETAILS

Research Facility- Performance Crop Research
Collaborator- Melissa Nelson
Locations: Great Bend, Kansas
Crop- Winter Wheat, Replicated four times
Fertilizer- MAP 30 lbs/acre
Objective- To show that Ionize treated phosphorus provides an economic benefit when applied to winter wheat. To demonstrate phosphorus use efficiency at reduced rates of phosphorus fertilizer.

YIELD RESULTS

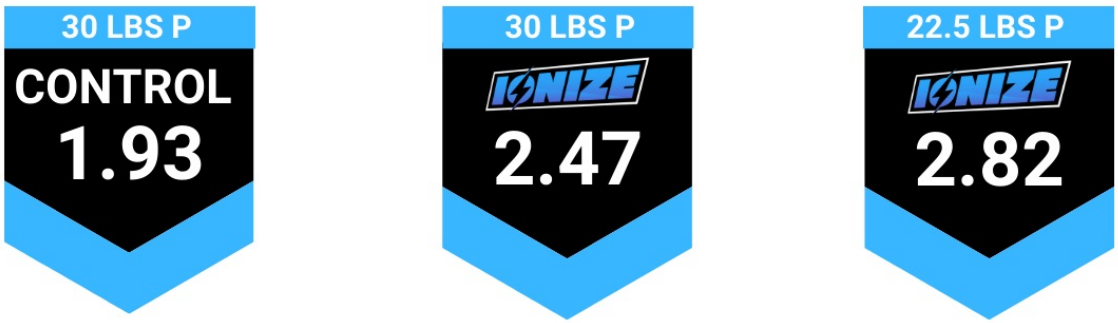
TREATMENT	YIELD BPA	COST/ACRE	RETURN/ACRE
CONTROL 30 LBS/A	59.8		
IONIZE 30 LBS/A	74.2	$2.53	+14.4 BPA $100.8
IONIZE 22.5 LBS/A	63.6	$2.53	+4.1 BPA $28.7*

****WHEAT PRICE $7 PER BUSHEL.**
*** NOT INCLUDING FERTILIZER SAVINGS OF $7.20 PER ACRE (MAP $1000)**

AGRONOMIC PHOSPHORUS USE EFFICIENCY

TRIAL SITE SOIL PHOSPHORUS LEVEL LOW 23ppm
SOIL PH 7.4

Agronomic phosphorus use efficiency (APUE) was calculated based on the formula:
APUE = Wheat yield (bushel/acre)/Phosphorus fertilizer applied (lb/acre)



+27% **+46%**

IONIZE improved phosphorus use efficiency and yields in both treatments. A 25% reduction in phosphorus resulted in an increase in yield at a lower fertilizer cost and significantly increased phosphorus use efficiency.